

**ARIZONA-SONORA BORDER 2020 MASTER ACTION PLAN - Final Closeout Report 2013-2014**

**Goal 1- Reduce Air Pollution**

Description of Action	Collaborating Organizations	Cost	Sources of Funding	Lead Points of Contact	2014 Target Output and Results	Status
<b>Objective 1: By 2020, in accordance with the NAFTA, promote the reduction of the number of vehicles operating in the border region that do not comply with the respective vehicle emissions standards, and reduce vehicle emissions at ports-of-entry through anti-idling and other feasible reduction measures.</b>						
Initiate a Vehicle Emissions Verification Program in Sonora.	Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora (CEDES), Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT)	Staff time	CEDES	Flora Leticia Soto Camacho florasotoc@hotmail.com	<b>Metrics:</b> Establish a regulatory framework for Vehicle Emissions. <b>Results:</b> Verification Program in the state of Sonora.	<b>Cancelled.</b>
Initiate a PM and NOx emissions assessment for northbound passenger and freight vehicles at the Mariposa Point of Entry.	Arizona State University	\$136,000	EPA/BECC	Joaquin Marruffo- BECC (jmaruffo@cocef.org)	<b>Metrics:</b> Begin field work and emissions modeling to identify PM and NOx emissions at the Mariposa port-of-entry. <b>Results:</b> Field work and emission modeling began in Spring of 2014.	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.
<b>Objective 2: By 2020, reduce pollutant emissions in order to approach attainment of respective national ambient air quality standards in the following airsheds: Ambos Nogales (PM 2.5 and PM 10), San Diego/Tijuana, Imperial County/Mexicali, Paso del Norte (El Paso/Juarez/Sunland Park)</b>						
Complete and apply a PM-10 State Implementation Plan (SIP) for Nogales, AZ.	Arizona Department of Environmental Quality (ADEQ) and Local Partners	Staff time	ADEQ and Local Partners	Edna A. Mendoza- ADEQ (Mendoza.Edna@azdeq.gov)	<b>Metrics:</b> Complete PM-10 Plan. <b>Results:</b> PM-10 State Implementation Plan for Nogales, Arizona was approved by EPA in August 2012.	<b>Complete.</b>
Complete and apply a PM2.5 SIP for Nogales, AZ (based on applicable data findings).	ADEQ and Local Partners	Staff time	ADEQ and Local Partners	Edna A. Mendoza- ADEQ (Mendoza.Edna@azdeq.gov)	<b>Metrics:</b> Complete PM-2.5 Plan. <b>Results:</b> The State of Arizona submitted a State Implementation Plan in September 2013. EPA's response on the submittal is pending and is expected in early 2015.	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.

Develop outreach, (e.g., binational clean air calendar) transition and expand outreach through social media tools.	EPA, ADEQ	\$50,000	EPA, ADEQ	Edna A. Mendoza- ADEQ (Mendoza.Edna@azdeq.gov)	<b>Metrics:</b> Develop annual web-based Air Quality Calendar. <b>Results:</b> Offices in Arizona and Sonora provided outreach support by contacting schools on both sides of the border. Approximately 3000 students participated. A binational panel of judges of the AZ-Mexico Commission made the final selection of the 13 drawings that were featured in the 2014 Arizona-Sonora Border Clean Air Calendar. The posting of the calendar is on ADEQ's website: <a href="http://www.azdeq.gov/obep/download/2014_calendar.pdf">http://www.azdeq.gov/obep/download/2014_calendar.pdf</a>	<b>Complete.</b>
Partner with Arizona State University to compile border air quality studies that have been completed and published for posting on an electronic library website	ADEQ, Arizona State University (ASU)	\$49,729	ADEQ	Edna A. Mendoza- ADEQ (Mendoza.Edna@azdeq.gov)	<b>Metrics:</b> Compile and electronically post border air quality studies to serve as a repository. <b>Results:</b> Researchers and other academicians gathered border-related air quality studies information from a myriad of sources, including ADEQ, EPA, and SCERP. The result was a website that serves as a repository for research, technical reports and presentations focusing on air quality, pollution, particulate matter, economic and health-related issues spanning the entire U.S.-Mexican border region. Repository can be seen at: <a href="https://borderairquality.asu.edu/">https://borderairquality.asu.edu/</a>	<b>Complete.</b>
Develop and implement Air Quality Improvement Management Programs (ProAire) in Nogales, Sonora. The programs will address strategies and measures to effectively reduce air emissions.	CEDES, SEMARNAT, City of Nogales	TBD	SEMARNAT	SEMARNAT Flora Leticia Soto Camacho florasotoc@hotmail.com	<b>Metrics:</b> Develop a strategy to reduce air emissions in Nogales, Sonora by 2014. <b>Results:</b> SEMARNAT is developing Pro-Aire for Sonora and other Mexican states. See next action item.	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.
Develop Management Program to improve the air quality of the State of Sonora (strategies and measures to reduce air emissions in the airsheds, including Nogales, Sonora).	CEDES, SEMARNAT, City of Nogales	Approximately \$150,000	SEMARNAT (FY14)	SEMARNAT, CEDES	<b>Metrics:</b> In late 2014, develop a preliminary draft ProAire for Sonora and preliminary measures to reduce emissions in the study area of Nogales. <b>Results:</b> The project contractor will be selected through BECC and the ProAire is expected to be published in 2015 followed by it's implementation.	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.

Initiate an Emissions Inventory for Criteria Pollutants for Nogales, Sonora	Calidad de Vida	\$54,000	EPA/BECC	Joaquin Marruffo- BECC (jmaruffo@cocef.org)	<b>Metrics:</b> Complete Field Work and Data Collection for the air emissions inventory. <b>Results:</b> Field Work and Data Collection is complete.	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.
<b>Objective 3: By 2018, maintain effective air monitoring networks and provide real-time access to air quality data in: Arizona/Sonora, California/Baja California, Paso del Norte, and any additional binational airshed that is designated as non-attainment for U.S. or Mexican air quality standards prior to 2015</b>						
Develop and implement a strategy for enhanced coordination of air monitoring and related activities in Sonora/Arizona border communities.	CEDES, ADEQ, EPA, SEMARNAT	\$90,000 and Staff time	US EPA, SEMARNAT, CEDES, ADEQ	Idalia Perez- US EPA perez.idalia@epa.gov Flora Leticia Soto Camacho florasotoc@hotmail.com Edna A. Mendoza- ADEQ (Mendoza.Edna@azdeq.gov)	<b>Metrics:</b> Complete strategy for enhanced coordination of air monitoring and related activities in Agua Prieta and Nogales, Sonora by December 2013. <b>Results:</b> Strategy completed. Highest priority is to begin operation of PM10 air quality monitor in Nogales, Sonora	<b>Complete.</b>
Upgrade four air quality monitors currently used in the Arizona border region	ADEQ, US EPA	\$60,000	US EPA, ADEQ	Edna A. Mendoza- ADEQ (Mendoza.Edna@azdeq.gov)	<b>Metrics:</b> Upgrade air quality monitors (one each in Nogales and Yuma; two in Douglas). <b>Results:</b> Monitors in Douglas, Yuma, and Nogales have been upgraded.	<b>Complete.</b>
<b>Objective 4: By 2015, support completion of climate action plans in each of the six northern Mexican Border States (as appropriate), and build the necessary capacity to guarantee sustained implementation.</b>						
Complete Phase II of the Climate State Action Plan (PEACC)	CEDES, SEMARNAT, Ciudad de Nogales	\$600,000 (Mexican) staff time and support of other institutions	CEDES, SEMARNAT	Flora Soto- CEDES florasotoc@hotmail.com	<b>Metrics:</b> Hold an open hearing on the proposed priority public policies after an analysis of the mitigation measures is completed. The analysis is in accordance with the Greenhouse Gas Emissions Inventory. Then complete a final report. <b>Results:</b> Meetings of the advisory group have begun. BECC has been approached for possible funding of Phase II.	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.
<b>Objective 5: By 2020, reduce emissions and associated impacts through energy efficiency and/or alternative/renewable energy projects.</b>						

Promote and disseminate manuals and guidelines for sustainable development of housing, rehabilitation of school buildings and hospital infrastructure	CEDES, SEMARNAT	Staff time costs of manual dissemination	CEDES, SEMARNAT	Flora Soto- CEDES florasotoc@hotmail.com	<b>Metrics:</b> Promote program along the Sonoran border. <b>Results:</b> Project cancelled.	<b>Cancelled.</b>
Construction of a 16 megawatt (DC) solar park at Davis-Monthan Air Force Base (DMAFB)	Davis-Monthan Air Force Base (DMAFB), North American Development Bank (NADB), BECC, SunEdison LLC	\$35,000,000	NADB, BECC	Juan Antonio Flores- BECC (jaflores@nadb.org)	<b>Metrics:</b> Construct a 16 megawatt (DC) solar park at Davis- Monthan Air Force Base near Tucson, Arizona. <b>Results:</b> Project was certified in September 2012 by the BECC. Construction was completed in February 2014. See following link for more information: <a href="http://nadb.org/pdfs/state_projects/FS%20DMAFB%20Solar%20Energy.pdf">http://nadb.org/pdfs/state_projects/FS%20DMAFB%20Solar%20Energy.pdf</a>	<b>Complete.</b>

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**Goal 2- Improve Access to Clean and Safe Water**

Description of Action	Collaborating Organizations	Cost	Sources of Funding	Lead Points of Contact	2014 Target Output and Results	Final Status
<b>Objective 1:</b> Promote the increase in the number of homes connected to safe drinking water and adequate wastewater treatment.						
<b>Sub-objective 1a:</b> By 2015, promote access to safe drinking water to at least 5,000 households. Revise targets every two years.						
<b>Sub-objective 1b:</b> By 2015, promote access to adequate wastewater sanitation to 42,000 households. Revise targets every two years.						
Nogales, Sonora wastewater project for Southwest zone of Nogales	Comisión Nacional del Agua (CONAGUA), EPA, Border Environment Cooperation Commission (BECC), North American Development Bank (NADB)	\$12,000,000 total construction	PDAP	Thomas Konner, EPA (konner.thomas@epa.gov)	<b>Metrics:</b> BECC certification of wastewater collection project. <b>Results:</b> Certification expected in 2015.	<b>Ongoing.</b> This activity will be included in the 2015-2016 Action Plan.
<b>Objective 2:</b> Help drinking water and wastewater utilities in the border region to implement sustainable infrastructure practices to reduce operating costs, improve energy efficiency, use water efficiently and adapt to climate change.						

**Sub-objective 2a: Incorporate sustainable infrastructure elements, as feasible and appropriate, into U.S.-Mexico Border Water Infrastructure Program-supported BECC-certified projects, which, in Mexico, are implemented through the EPA-CONAGUA Memorandum of Understanding Concerning the Joint Grant Contributions for Drinking Water Supply.**

EPA Region 9 will incorporate Sustainable infrastructure components in the development phase of US-Mexico border water infrastructure program projects.	EPA, CONAGUA, BECC	TDB	Local, state and federal partners	Hector Aguirre, EPA (aguirre.hector@epa.gov)	<b>Metrics:</b> Sustainable infrastructure components will be incorporated into two projects based on the results from energy audits. <b>Results:</b> Completed two energy audits (San Luis Rio Colorado, Sonora and Wilcox, Arizona) and another is underway (Douglas, AZ).	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.
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**Sub-objective 2b: Improve energy efficiency and efficient water use at border drinking water and wastewater utilities.**

Installation of solar panels for the generation of power at the Los Alisos Wastewater Treatment Plant.	EPA, BECC	\$700,000	EPA	Thomas Konner, EPA (Konner.thomas@epa.gov)	<b>Metrics:</b> Design and construction of a 902 KW photovoltaic plant with peak capacity of 1572 MWh/year, preventing up to 1.76M pounds of CO2/year from entering the atmosphere. <b>Results:</b> Completed project. Awaiting final hook-up.	<b>Completed.</b>
Perform energy audits in the final design of eight US-Mexico Border Water Infrastructure Program projects.	EPA, CONAGUA, BECC	TBD	PDAP	Roberto Molina (BECC)	<b>Metrics:</b> Water audit reports in at least three (3) selected utilities. <b>Results:</b> Water audit completed for San Luis Rio Colorado, Sonora and underway for Douglas, AZ	<b>Ongoing.</b> This action to be included in the 2015-2016 Action Plan.

**Sub-objective 2c: Build operational, managerial and financial capacity through training of drinking water and wastewater service providers in the border region.**

Wastewater operations training in seven (7) Mexican border communities including Matamoros, and Reynosa, Tamaulipas, Ciudad Juarez, Chihuahua, Sonoyta and San Luis Rio Colorado, Sonora, Tecate and Playas de Rosarito, Baja California.	EPA, NADB	\$40,000	BECC, EPA Border 2020 funds	Salvador Gandara- US EPA, Region 6 (Gandara.salvador@epa.gov)	<b>Metrics:</b> Wastewater operations training in several Mexican border communities. <b>Results:</b> Trained 50 operators, 288 hours over 18 courses in several Mexican communities; including Nogales, San Luis Rio Colorado, Mexicali, and Tijuana.	<b>Completed.</b>
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**Objective 3: Work binationally to identify and reduce surface water contamination in specific high priority water bodies or watersheds.**

<p>Create two (2) regional nurseries for the production of flora to be used in the reforestation of the Rio Altar Region.</p>	<p>Rio de Altar, Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora (CEDES), Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT), Comisión Nacional Forestal (CONAFOR)</p>	<p>\$334,000</p>	<p>CONAFOR/CEDES</p>	<p>Lic. Flora Soto - CEDES florasotoc@hotmail.com</p>	<p><b>Metrics:</b> Two regional nurseries created for production of flora for reforestation of Rio Altar Region. <b>Results:</b> Created two regional nurseries, one in Aconchi and the other on Altar, Sonora using \$4.5M pesos (Anexo 36 del Ramo 16 del PEF 2012)</p>	<p><b>Completed.</b></p>
<p>The Borderlands Habitat Restoration Initiative aims to help local citizens restore degraded land and improve wildlife habitat. USGS is helping to model watershed at Sonoita and Patagonia to find best location for gully plugs.</p>	<p>Borderlands Habitat Initiative, US Fish and Wildlife Service (US FWS), US Geological Survey (USGS)</p>	<p>\$200,000</p>	<p>Borderlands Restoration, L3C</p>	<p>H Ronald Pulliam- UGA (pulliam2@uga.edu)</p>	<p><b>Metrics:</b> Identify best areas and detention structure technology to positively impact local surface runoff, infiltration, erosion and sediment yield.</p> <p>Design and install the combination of loose-rock trincheras, wire basket gabions, and earthen berms to reduce erosion and increase infiltration.</p> <p>Evaluate changes in ground cover, infiltration, runoff, sediment yield, and discharge and estimate recharge associated with the detention structures.</p> <p>Incorporate the monitoring data into the groundwater model to simulate the long-term effects of the recharge changes.</p> <p>Revegetate disturbed areas with native grasses to minimize erosion. <b>Results:</b> Installed over 700 erosion control structures on drainages of the Babocomari River and 40 on Sonoita Creek and have revegetated extensively with native plants.</p>	<p><b>Completed.</b></p>
<p><b>Sub-objective 3b: Every two years, identify and implement at least one project to reduce the level of heavy metals, sediment, and/or bacteria entering the Santa Cruz River and/or the Nogales Wash</b></p>						
<p>Sampling and testing equipment and supplies to support Ambos Nogales waste characterization study.</p>	<p>International Boundary and Water Commission (IBWC)</p>	<p>Est \$20,000</p>	<p>IBWC</p>	<p>Wayne Belzer-IBWC (wayne.belzer@ibwc.gov)</p>	<p><b>Metrics:</b> Prepare joint waste characterization study for Nogales, Arizona and Sonora and provide resources as needed to implement study. <b>Results:</b> The study will be completed by January 2015.</p>	<p><b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.</p>

Facilitate stormwater control trainings and rainwater harvesting projects in the border region for non-point source pollution control.	Arizona Department of Environmental Quality (ADEQ), EPA	Approx. \$6000 Staff time	ADEQ and EPA	Hans Huth- ADEQ (huth.hans@azdeq.gov)	<b>Metrics:</b> Facilitate stormwater control trainings and rainwater harvesting projects in the border region for non-point source pollution control. <b>Results:</b> Stormwater training workshop held on March 14, 2013.	<b>Completed.</b>
Facilitate binational technology and expertise exchange for pretreatment of metals in wastewater.	ADEQ, EPA, Partnering Organizations or Industries	Staff Time	ADEQ, US EPA, Partnering Organizations or Industries	Hans Huth- ADEQ (huth.hans@azdeq.gov)	<b>Metrics:</b> Peer-to-peer industry outreach to improve management of metals in wastewater discharges. (field trips - one metal plater, work with APSA environmental groups, set up laboratory in Nogales, Sonora for quicker testing of water samples.) <b>Results:</b> ADEQ has coordinated two facility tours for the Border 2020 ASU leads on this project. On June 24, 2014, ASU faculty and staff visited Alcoa Fastening Systems and the Nogales International Wastewater Treatment Plant. Information gathered from the tours will be used to support the development of training materials for workshops. AFS has confirmed it will host peer-to-peer tours of its facilities in late 2014.	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.
Develop and support decision-making tools to improve the management of wastewater in binational watersheds.	Arizona Department of Environmental Quality (ADEQ), USGS, EPA, Partnering Organizations	Staff Time	ADEQ, USGS, EPA, Partnering Organizations	Hans Huth- ADEQ (huth.hans@azdeq.gov)	<b>Metrics:</b> Dataset development in support of the USGS Source Water Assessment Tool (SWAT) for assessing the impacts of Los Alisos WWTP on the water quantity and quality on the Santa Cruz river. Present results of modeling at one of the Arizona-Mexico Commission meeting. <b>Results:</b> On June 25, ADEQ coordinated with the City of Phoenix to host a tour of it's S:CAN installation for the demonstration of real time monitoring of wastewater quality entering the 22nd Avenue Plant. The city hosted the tour for the IBWC Binational Technical Committee. IBWC will now conduct a pilot study of this technology to improve monitoring and response to impaired wastewater quality impacting the Nogales International Wastewater Treatment Plant.	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.

Install additional stream gauges and update rainfall-runoff modeling for improved stormwater management and land-use planning.	Lead: USGS Partners: US Northern Command (NORTHCOM), City of Nogales Sonora/ Comisión Internacional de Límites y Aguas (CILA), JE Fuller Consultants, US National Weather Service (NWS), and US Department of Agriculture- Agricultural Research Service (USDA- ARS)	\$400,000	NORTHCOM	Floyd Gray-USGS (fgray@usgs.gov)	<b>Metrics:</b> Install stream gauges. Will be reporting real-time data. <b>Results:</b> Network installed in 2012. Secondary network connected through 5 weather stations. Radio transmitting 9 Davis Instruments Vantage Vue Systems.	<b>Completed.</b>
Digitize aerial photos and processing Landsat imagery to show changes in vegetation and potential ecosystem services around 9 flood detention structures in Nogales, Sonora.	USGS , University of Arizona (ASU)	\$10,000	USGS	Laura Norman- USGS (lnorman@usgs.gov)	<b>Metrics:</b> Analyze 4 time periods for changes in vegetation, land use/land cover from before/after gabion construction & present at Santa Cruz River Researcher's Day. <b>Results:</b> Research completed and reported at the following website: <a href="http://www.sonorainstitute.org/images/stories/pdfs/Presentations/SCRResearchDays/2013/scrrd2013_gass_poster.pdf">http://www.sonorainstitute.org/images/stories/pdfs/Presentations/SCRResearchDays/2013/scrrd2013_gass_poster.pdf</a>	<b>Completed.</b>

**ARIZONA-SONORA BORDER 2020 MASTER ACTION PLAN – Final Closeout Report 2013-2014**  
**Goal 3- Promote Materials Management, Waste Management and Clean Sites**

Description of Action	Collaborating Organizations	Cost	Sources of Funding	Lead Points of Contact	2014 Target Output and Results	Status
<b>Objective 1: By 2020, increase local and state-level institutional knowledge and experience in the area of sustainable material management practices.</b>						
Increase public and private sector knowledge on sound management of electronic waste (E-waste) through outreach campaign and training program on two, distinct E-waste recycling certification programs - Responsible Recycling (R2) and E-stewards.	R2-Solutions E-Stewards EPA Reg 6 & 9	\$20K  (Actual costs less than \$5K border-wide)	EPA/BECC and other funding: leverage in-kind support from certifying organizations.	E. Pimentel; (EPA); Eder Delgadillo (ADEQ), Sergio Gasca (SEMARNAT)	<b>Metrics:</b> Complete at least one training event in AZ/Sonora border region (e.g., webinar/workshop). Measure number of individuals and business/institutions that participate in the training.  <b>Results:</b> Border-wide R2: 83 participants; E-Stewards: 74 participants. Webinar link: <a href="http://www2.epa.gov/border2020/goal-3-task-forces-promote-materials-and-waste-management-and-clean-sites-region-9-border">http://www2.epa.gov/border2020/goal-3-task-forces-promote-materials-and-waste-management-and-clean-sites-region-9-border</a>	<b>Completed.</b>

Increase capacity to develop and comply with special waste management plans in Sonora, based on MX Norm 161. Use existing Sonora border region waste inventory to identify waste stream priorities for development of waste management plans, and target strategic industry material/waste streams (focus on end-of-life vehicles).	CEDES	In-Kind	CEDES	Joaquin Marruffo (formerly with CEDES)	<b>Metrics:</b> Model special waste management plan template and guidance on applying MX Norm 161. <b>Results:</b> Activity not implemented.	<b>Cancelled</b>
<b>Objective 2: By 2014, identify priority waste streams and by 2020 develop sustainable material management practices that strengthen their respective market value.</b>						
Train interested “recyclers” operating in border region, on E-waste certification requirements (based on Responsible Recyclers (R2) and e-Stewards certification programs).	EPA/ SEMARNAT/ ADEQ/ CEDES/ and non-profit “recycling” certification program organizations	\$111,150	EPA border funds and leverage in-kind	Emily Pimentel (EPA Reg. 9); JB Shaw (ADEQ); Sergio Gasca (SEMARNAT);	<b>Metrics:</b> Complete training of at least five firms in AZ/Sonora. Will measure number of participants and business/institutions reached and individuals that participate in training and number of new firms taking steps to get certified by 2020 in border states. <b>Results:</b> The grantee (ADEQ) received grant in 2013. Action will be carried into next two-year action plan.	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan
Solid waste trash collection vehicles for the municipality of Magdalena, Sonora	Magdalena/ CEDES, SEMARNAT	\$189,000	SEMARNAT; Dirección General de Fomento Ambiental Urbano y Turístico (DGFAUT)	Joaquín Marruffo (formerly with CEDES); C. Chávez (SEMARNAT)	<b>Metrics:</b> Acquisition of a solid waste trash collection vehicles for the municipality of Magdalena, Sonora. <b>Results:</b> Activity not implemented.	<b>Cancelled</b>
Scrap tire shredder	CEDES/ SEMARNAT	\$246,500	SEMARNAT; (DGFAUT)	Joaquín Marruffo (formerly with CEDES); C. Chávez (SEMARNAT)	<b>Metrics:</b> Acquisition of a scrap tire shredder. <b>Results:</b> Will carry over to new two-year action plan.	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan
<b>Objective 3: By 2020, improve knowledge at every level of government (federal, state, local) to characterize and remediate contaminated sites.</b>						

Improve remediation knowledge associated with specific chemical waste streams (e.g. pesticides, mine tailings) and industry waste categories (e.g. metal smelters) by providing training (via webinar or half-day workshop) in coordination with EPA's Clean-up Information Program ( <a href="http://www.clu-in.org">www.clu-in.org</a> ).	EPA, SEMARNAT/ INE (coordinate with EPA's CLU-IN and University of AZ Dean Carter Binational Center.	\$5,000	EPA, SEMARNAT, ADEQ, CEDES	Emily Pimentel (EPA Reg. 9); Sergio Gasca, SEMARNAT	<b>Metrics:</b> One training that applies to border in AZ/Sonora. Will measure number of individuals and business/institutions that participate in the training <b>Results:</b> Cancelled. Will reassess needs and collaborating agencies.	<b>Cancelled</b>
<b>Objective 4: On an annual basis, implement the Binational Consultative Mechanism on sharing information on border area hazardous waste facilities.</b>						
Coordinate with EPA HQ and SEMARNAT-Mexico City to implement Consultative Mechanism in coordination with border states of AZ/Sonora.	ADEQ/ CEDES/ EPA/ SEMARNAT	In-Kind	In-kind EPA, SEMARNAT, and State Program Funding	Rick Picardi (EPA HQ) Eduardo Gonzalez Hernandez (SEMARNAT)	<b>Metrics:</b> Annual report, unless there are proposed new facilities in which case the respective countries should be notified within 30 days of a petition for a facility permit. <b>Results:</b> Report submitted Oct. 2014. (Annual activity)	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan

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**Goal 4- Enhance Joint Preparedness for Environmental Response**

Description of Action	Collaborating Organizations	Cost	Sources of Funding	Lead Points of Contact	2014 Target Output and Results	Status
<b>Objective 1: Update as necessary, the current Mexico-US Joint Contingency Plan and on an annual basis, continue to evaluate and update the emergency notification mechanism between Mexico and the United States.</b>						
Table top exercises in Rio Rico and Nogales, Sonora	Procuraduria Federal de Protección al Ambiente (PROPEPA), Protección Civil de Sonora, Local Responders	\$100,000	US EPA Superfund	Bill Jones - USEPA (jones.bill@epa.gov)	<b>Metrics:</b> Implement Table Top exercises in Rio Rico, AZ., and Nogales, Sonora. Identify recommendations for improvements. <b>Results:</b> Implemented Borderwide: 10 - 24 hr First Responders Operation courses; 5 - 8 hr First Responders Awareness courses; and 9 - Traffic Incident Management System courses. Train derailment tabletop was conducted in Rio Rico (March 2014) and a full scale gasoline explosion drill was exercised in Agua Prieta, Sonora (June 2014).	<b>Completed.</b>

<b>Objective 2: By 2020, at least eight (8) of the sister city joint contingency plans will be supplemented with preparedness and prevention related activities such as certified training, risk analysis, and/or capacity building.</b>						
Trinational Contingency Plan for Tohono O'odham, Yuma, and San Luis Rio Colorado	Tohono O'odham/ City of Yuma/ City of San Luis Rio Colorado	\$80,000	US EPA Superfund	Bill Jones - USEPA (jones.bill@epa.gov)	<b>Metrics:</b> Finalization of the plan. <b>Results:</b> To be completed by March 2015.	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.
<b>Objective 3: By 2016, the US-Mexico JRT will make available technical outreach and training materials for distribution and dissemination along the border.</b>						
Distribution of Department of Transportation (DOT) Emergency Response Guide	Arizona Emergency Management	\$2,500	US EPA Superfund	Bill Jones - USEPA (jones.bill@epa.gov)	<b>Metrics:</b> Distribute 750 Spanish copies of Department of Transportation Emergency Response Guide. <b>Results:</b> Hard copies were distributed in conjunction with the First Responder Operations and First Responder Awareness trainings, as well as Task Force mtgs. Weblink was also provided: <a href="http://www.phmsa.dot.gov/pv_obj_cache/pv_obj_id_7E6DBD072A5456A1CC2F6B019DF9EAC03D074600/filename/ERG2012_sp.pdf">http://www.phmsa.dot.gov/pv_obj_cache/pv_obj_id_7E6DBD072A5456A1CC2F6B019DF9EAC03D074600/filename/ERG2012_sp.pdf</a>	<b>Completed.</b>
Distribution of Incident Command System, Personal Protective Equipment, Fire Safety, Radiation Safety, Mercury Response, First Responder Awareness	Arizona Emergency Management	\$10,000	US EPA Superfund	Bill Jones - USEPA (jones.bill@epa.gov)	<b>Metrics:</b> Distribute emergency response materials in Spanish. <b>Results:</b> All the materials were provided in Spanish for the Borderwide: 10 - 24 hr First Responder Operations (FRO) courses; 5 - 8 hr First Responder Awareness (FRA) courses; and 9 - Traffic Incident Management System (TIMs) course.; 3/14 Train derailment tabletop in Rio Rico; and 6/14 Full scale gas line explosion drill Agua Prieta.	<b>Completed.</b>
<b>Objective 4: By 2016, the US-Mexico JRT will analyze existing agreements (including sister city plans) that allow trans-boundary movement of equipment and personnel for comparison purposes.</b>						
No 2013-2014 Actions					None	

**Arizona/Sonora Border 2020 MASTER ACTION PLAN- Final Closeout 2013-2014  
Goal 5 - Enhance Compliance Assurance and Environmental Stewardship**

Description of Action	Collaborating Organizations	Cost	Sources of Funding	Lead Points of Contact	2014 Target Output and Results	Status
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<b>Objective 1: By 2020, strengthen effective information sharing between U.S. and Mexican agencies regarding the movement of hazardous waste across the border and its ultimate treatment or disposal. In addition, ensure that land ports-of-entry have sufficient inspection capacity to police hazardous waste shipments.</b>						
Support Hazardous Waste Inspections at the Nogales Commercial Port of Entry (POE).	ADEQ, US EPA, and US Customs	PT inspector	ADEQ and EPA/RCRA STAG funds	Emily Pimentel Pimentel.Emily@epa.gov	<p><b>Metrics:</b> Dialogue on MOU with CBP/Customs to conduct regular environmental inspections at the POE.</p> <p><b>Results:</b> The MOU is complete and includes agreement that Port-of-Entry access will be facilitated at U.S. Customs' discretion.</p> <p>Inspections and MOU will carry over into the next two-year action plan</p>	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.
<b>Objective 2: By 2020, in Mexico, increase by 25 percent the number of businesses in the border region enrolled in the National Program for Environmental Auditing (PNAA) and/or similar programs at the state level for facilities not regulated by the federal government, using 2012 as a baseline.</b>						
Conduct audits through the National Program for Environmental Auditing Program (PNAA).	PROFEPA and local partners			Francisco Maytorena fmaytorena@profepa.gob.mx	<p><b>Metrics:</b> Report on number of facilities.</p> <p><b>Results:</b> This action will be carried over into the next two-year action plan.</p>	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.
<b>Objective 3: Using the U.S. Toxic Release Inventory (TRI) and the Mexican Registry of Emissions and Transfers of Pollutants (RETC), along with other sources of environmental information, share information regarding activities contributing pollution to trans-boundary air and/or water basins along the border.</b>						
Increase public knowledge of industrial discharges/releases, using EPA's Toxic Release Inventory (TRI).	US EPA	In-kind staff time	Existing programs	E. Pimentel Pimentel.emily@epa.gov	<p><b>Metrics:</b> TRI fact sheets for validated data available in 2013-2014.</p> <p><b>Results:</b> Validated data for years 2012 and 2013 now available and data can be sorted on-line through TRI website using US zip codes aligned to border. No additional resources anticipated to develop border region factsheets.</p>	<b>Complete</b>

Increase public knowledge of industrial discharges/releases, by sharing RETC data.	SEMARNAT	In-kind staff time	Existing programs	SEMARNAT	<p><b>Metrics:</b> RETC reports.</p> <p><b>Results:</b> SEMARNAT reported the availability of the 2013 emissions reporting data:  <a href="http://app1.semarnat.gob.mx/retc/index2.html">http://app1.semarnat.gob.mx/retc/index2.html</a></p> <p>No additional resources anticipated to develop border region fact sheets. CEC reports the availability of the international data evaluation for Canada, Mexico and the United States:  <a href="http://www.cec.org/Page.asp?PageID=751&amp;ContentID=&amp;SiteNodeID=1097&amp;BL_ExpandID=&amp;AA_SiteLanguageID=3">http://www.cec.org/Page.asp?PageID=751&amp;ContentID=&amp;SiteNodeID=1097&amp;BL_ExpandID=&amp;AA_SiteLanguageID=3</a></p>	<b>Complete</b>
<b>Objective 4: By 2020, implement at least five (5) binational workshops targeted to environmental enforcement professionals, including port-of-entry customs professionals, to promote the exchange of information and improve understanding of each country's respective compliance and enforcement programs and tools, including field inspection and case development practices.</b>						
Convene binational enforcement workshop for AZ/SN and CA/BC border enforcement.	US EPA, PROFEPA, DTSC, SPA, ADEQ, CEDES	\$10,000 ~	Border 2020 and existing RCRA program funds	E. Pimentel Pimentel.emily@epa.gov	<p><b>Metrics:</b> Convene binational enforcement.</p> <p><b>Results:</b> Task Force convened in June 2013. Completed one of five workshops.</p>	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.

**ARIZONA-SONORA BORDER 2020 MASTER ACTION PLAN – Final Closeout Report 2013-2014  
Environmental Health Fundamental Strategy**

<b>Description of Project</b>	<b>Collaborating Organizations</b>	<b>Cost</b>	<b>Sources of Funding</b>	<b>Points of Contact</b>	<b>2013-2014 Target Output and Results</b>	<b>Status</b>
EPA and the U. S. Section of the Border Health Commission formally adopt a Border Health Collaborative Agreement to leverage mutual resources to improve environmental health along the U.S.-Mexico border.	CDPH, ADHS, EPA, HHS	\$0	HHS, EPA, CDPH, ADHS, USBHC, partners	Alheli Banos-Keener (EPA), Carlos Rincon (EPA), Lisa Almodovar (EPA), April Fernandez (CDPH), Robert Guerrero (AZDHS), Jose Luis Velasco (HHS-BHC)	<p><b>Metrics:</b> Adopt a new Collaborative Agreement between EPA and USBHC on environmental health.</p> <p><b>Results:</b> Agreement reached in August 2014 with commitments and goals to be implemented for the next 2 years. See web-page for more information:  <a href="http://www2.epa.gov/border2020">http://www2.epa.gov/border2020</a></p>	<b>Ongoing.</b> This action will be included in the 2015-2016 Action Plan.

Implement Healthy Homes Training	EPA, SERI, UNLV, National Healthy Housing Training Network	\$	R9 Land Division, OCHP	Jackie Menghrajani (EPA)	<p><b>Metrics:</b> Implement Healthy Homes training workshop.</p> <p><b>Results:</b> Trained approximately 31 promotores and community health workers in Tucson, Arizona on September 16-17, 2014 on Healthy Home concepts.</p>	<b>Completed</b>
Train the Trainer workshops for personnel who train farmworker and pesticide handlers and on the Worker Protection Standard.	EPA, Campesinos sin Fronteras	EPA staff time and travel	R9 Pesticides Office, Border 2020 Program	Fabiola Estrada (EPA)	<p><b>Metrics:</b> Implement Promotor Training on pesticide safety and on the Worker Protection Standard</p> <p><b>Results:</b> Provided train-the trainer education for promotores in San Luis, Arizona, August (2013 and 2014).</p>	<b>Completed</b>